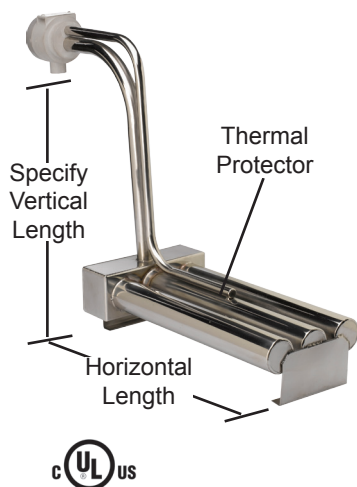




| D3L SERIES, DERATED TRIPLE METAL L-SHAPED HEATERS |       |           |           |                   |                   |                   |                   |            |  |
|---------------------------------------------------|-------|-----------|-----------|-------------------|-------------------|-------------------|-------------------|------------|--|
| WATTS                                             | VOLTS | STD.      |           | STEEL             | 304 SS            | 316 SS            | TITANIUM          | SHIP WGT.  |  |
|                                                   |       | HORIZ.    | VERT.*    |                   |                   |                   |                   |            |  |
|                                                   |       | Ln./.(mm) | Ln./.(mm) |                   |                   |                   |                   | Lbs./.(kg) |  |
| 1500                                              | 120   | 13        | 15        | D3LP1.5113-R*-**  | D3LF1.5113-R*-**  | D3LS1.5113-R*-**  | D3LT1.5113-R*-**  | 30         |  |
|                                                   | 240   | (330)     | (381)     | D3LP1.5213-R*-**  | D3LF1.5213-R*-**  | D3LS1.5213-R*-**  | D3LT1.5213-R*-**  | (13.6)     |  |
| 3000                                              | 240   | 17        | 37        | D3LP3217-R*-**    | D3LF3217-R*-**    | D3LS3217-R*-**    | D3LT3217-R*-**    | 33         |  |
|                                                   | 480   | (432)     | (940)     | D3LP3417-R*-**    | D3LF3417-R*-**    | D3LS3417-R*-**    | D3LT3417-R*-**    | (15)       |  |
| 4500                                              | 240   | 22        | 37        | D3LP4.5222-R*-**  | D3LF4.5222-R*-**  | D3LS4.5222-R*-**  | D3LT4.5222-R*-**  | 36         |  |
|                                                   | 480   | (559)     | (940)     | D3LP4.5422-R*-**  | D3LF4.5422-R*-**  | D3LS4.5422-R*-**  | D3LT4.5422-R*-**  | (16.3)     |  |
| 6000                                              | 240   | 26        | 37        | D3LP6226-R*-**    | D3LF6226-R*-**    | D3LS6226-R*-**    | D3LT6226-R*-**    | 39         |  |
|                                                   | 480   | (660)     | (940)     | D3LP6426-R*-**    | D3LF6426-R*-**    | D3LS6426-R*-**    | D3LT6426-R*-**    | (17.7)     |  |
| 7500                                              | 240   | 31        | 37        | D3LP7.5231-R*-**  | D3LF7.5231-R*-**  | D3LS7.5231-R*-**  | D3LT7.5231-R*-**  | 42         |  |
|                                                   | 480   | (787)     | (940)     | D3LP7.5431-R*-**  | D3LF7.5431-R*-**  | D3LS7.5431-R*-**  | D3LT7.5431-R*-**  | (19.1)     |  |
| 9000                                              | 240   | 36        | 50        | D3LP9236-R*-**    | D3LF9236-R*-**    | D3LS9236-R*-**    | D3LT9236-R*-**    | 45         |  |
|                                                   | 480   | (914)     | (1270)    | D3LP9436-R*-**    | D3LF9436-R*-**    | D3LS9436-R*-**    | D3LT9436-R*-**    | (20.4)     |  |
| 12000                                             | 240   | 44        | 50        | D3LP12244-R*-**   | D3LF12244-R*-**   | D3LS12244-R*-**   | D3LT12244-R*-**   | 54         |  |
|                                                   | 480   | (1118)    | (1270)    | D3LP12444-R*-**   | D3LF12444-R*-**   | D3LS12444-R*-**   | D3LT12444-R*-**   | (24.5)     |  |
| 13500                                             | 240   | 50        | 50        | D3LP13.5250-R*-** | D3LF13.5250-R*-** | D3LS13.5250-R*-** | D3LT13.5250-R*-** | 60         |  |
|                                                   | 480   | (1270)    | (1270)    | D3LP13.5450-R*-** | D3LF13.5450-R*-** | D3LS13.5450-R*-** | D3LT13.5450-R*-** | (27.2)     |  |
| 15000                                             | 240   | 55        | 50        | D3LP15255-R*-**   | D3LF15255-R*-**   | D3LS15255-R*-**   | D3LT15255-R*-**   | 66         |  |
|                                                   | 480   | (1397)    | (1270)    | D3LP15455-R*-**   | D3LF15455-R*-**   | D3LS15455-R*-**   | D3LT15455-R*-**   | (29.9)     |  |
| 18000                                             | 240   | 64        | 50        | D3LP18264-R*-**   | D3LF18264-R*-**   | D3LS18264-R*-**   | D3LT18264-R*-**   | 75         |  |
|                                                   | 480   | (1626)    | (1270)    | D3LP18464-R*-**   | D3LF18464-R*-**   | D3LS18464-R*-**   | D3LT18464-R*-**   | (34)       |  |

\* Specify vertical length by adding height in inches after "R". Example: D3LS3217-R36-P1.

## D3L Series Heater Features and Benefits

### SUPERIOR CHEMICAL RESISTANCE:

- For use in most aqueous alkaline solutions, and plating and phosphate tanks. Check solution recommendation chart with your chemical supplier for proper sheath material selection.

### RUGGED CONSTRUCTION:

- Heavy wall metal sheaths available in:  
Steel  
304 stainless steel  
316 stainless steel  
Titanium

### OUTSTANDING PERFORMANCE:

- Watt densities up to 18 watts per square inch (2.8 w/cm<sup>2</sup>) ensure long service life.

### CORROSION RESISTANT HEAD:

- Vapor resistant, flame retardant polypropylene terminal enclosure with 3 ft (.9m) flexible PVC liquid tight conduit.

### SAFETY FEATURES:

- Grounded construction.
- Thermal protectors built in. Replaceable PI protector standard for solutions up to 180°F (82°C).
- Non-floating construction.

**CERTIFICATIONS:** cULus listed (except steel) and CE compliant (except 600 volts).

**SIZES:** 1,500 watts to 18,000 watts.

### VOLTAGES:

- 120 to 600 volts.

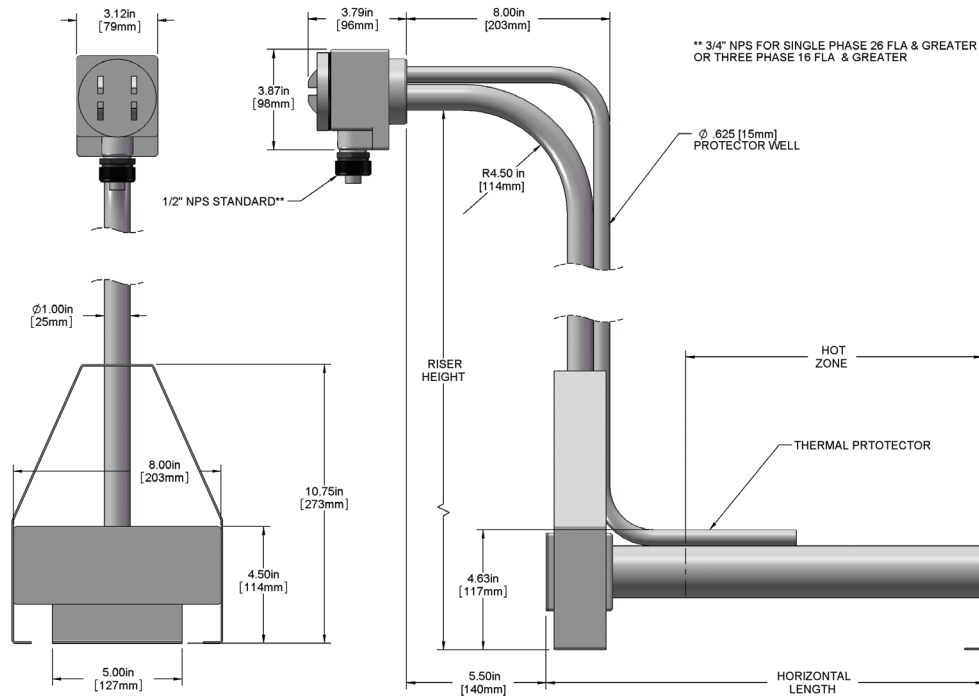
### OPTIONS AVAILABLE (consult factory):

- Replaceable thermal protectors:  
P4: for solutions up to 230°F(110°C)  
P5: for solutions up to 300°F(149°C)

Resettable thermal protectors:

- P2: for solutions up to 180°F(82°C)
- P6: for solutions up to 230°F(110°C)
- P7: for solutions up to 300°F(149°C)
- Special configurations and lengths.
- Longer wire and conduit lengths.
- Lower watt densities for highly viscous solutions.
- Temperature and level controls sized to match the heater (sold separately).
- All metal welded junction box.

## DIMENSIONS



## DERATED TRIPLE TUBE METAL L-SHAPED HEATER ORDERING INFORMATION

| Series                                                                                      | Wattage                                                                                                                              | Voltage                                                                                                    | Horizontal Length (in.)                                                                                                          | Vertical Length (in.)                                                                                                                                                                                                                     | Riser Option | Options                                                                                                                                                                                                                                                                                                 | Type of Protector | Wire and Conduit Length                                                                   |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------|
|                                                                                             | 1.5 = 1500<br>3 = 3000<br>4.5 = 4500<br>6 = 6000<br>7.5 = 7500<br>9 = 9000<br>12 = 12000<br>13.5 = 13500<br>15 = 15000<br>18 = 18000 | 1 = 120<br>2 = 240<br>3 = 380<br>4 = 480<br>5 = 415<br>6 = 600<br>7 = 400<br>8 = 208<br>9 = 220<br>0 = 200 | 13 = 1.5kW<br>17 = 3kW<br>22 = 4.5kW<br>26 = 6kW<br>31 = 7.5kW<br>36 = 9kW<br>44 = 12kW<br>50 = 13.5kW<br>55 = 15kW<br>64 = 18kW | -R15 = 1.5kW<br>-R37 = 3kW<br>-R37 = 4.5kW<br>-R37 = 6kW<br>-R37 = 7.5kW<br>-R50 = 9kW<br>-R50 = 12kW<br>-R50 = 13kW<br>-R50 = 15kW<br>-R50 = 18kW<br>(custom lengths available)<br>Ex: -R21 = 21"<br>-FR = flex riser<br>Ex: -FR21 = 21" |              |                                                                                                                                                                                                                                                                                                         |                   | no designator = 36" length standard<br>specify variations from standard<br>Ex: -X84 = 84" |
| D3LP = steel<br>D3LF = 304 stainless steel<br>D3LS = 316 stainless steel<br>D3LT = titanium |                                                                                                                                      |                                                                                                            | no designator = 90° horizontal bend (standard)<br>-S = straight riser                                                            |                                                                                                                                                                                                                                           |              | no designator = three phase power (standard)<br>-1 = single phase power                                                                                                                                                                                                                                 |                   |                                                                                           |
|                                                                                             |                                                                                                                                      |                                                                                                            |                                                                                                                                  |                                                                                                                                                                                                                                           |              | <b>Replaceable Protector</b><br>P1 for solutions up to 180°F<br>P4 for solutions up to 230°F<br>P5 for solutions up to 300°F<br><b>Resettable Protector</b><br>(additional control components required)<br>P2 for solutions up to 180°F<br>P6 for solutions up to 230°F<br>P7 for solutions up to 300°F |                   |                                                                                           |

### ORDERING EXAMPLE:

D3LF12444-R50-P4

Derated, L-shaped, triple tube, 304 SS, 12,000 watts, 480 volt, 44" length, 50" vertical riser, P4 protector.

**PROCESS  
TECHNOLOGY**